Interactive Object Transformation Based Expert System For Symbolic

Mathematics On A Handheld Device

ABSTRACT

A graphing calculator (10) having a user interface that assists the user to learn the symbolic aspects of algebra and calculus by helping them analyze the structure of the mathematical objects they are working with, the legal transformations that they can apply to those objects and the results of the transformation. An embodiment of the present invention is a graphing calculator, which allows the user to step through the solution of a computational mathematical problem. Similarly, other embodiments include the same user interface functionality in a software application package that is executed on a graphing calculator or other handheld device.